APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/450,584	11/30/1999	SHIGERU TSUKIMURA	046601-5034	7883

9629   7590   10/22/2003

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EXAMINER
POKRZYWA, JOSEPH R

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/450,584	TSUKIMURA, SHIGERU
	Examiner	Art Unit
	Joseph R. Pokrzywa	2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *01 August 2003* .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-9* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-9* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant's request for reconsideration was received on 8/1/03, and has been entered and made of record. Currently, **claims 1-9** are pending.

2.   Applicant's arguments, seen in pages 1-3, filed 8/1/03, with respect to the rejection of claim 9 under 35 U.S.C. 102(e), as being unpatentable over Trask (U.S. Patent Number 6,549,303) and the rejection of claims 1-8 under 35 U.S.C. 103(a), as being unpatentable over Trask (U.S. Patent Number 6,549,303) in view of Kanata *et al.* (U.S. Patent Number 6,473,202), have been fully considered and are persuasive. The translation of the foreign priority papers have been made of record and overcome the rejection. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Coleman (U.S. Patent Number 5,784,172).

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-3, and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by

Coleman (U.S. Patent Number 5,784,172).

        Regarding *claim 1*, Coleman discloses an image processing device (see Figs. 6 and 7)

comprising an input part to which image data represented by a plurality of colors including black

is input (step S405 in Fig. 9, see abstract, and column 3, line 60 through column 4, line 39), a

black area detector that detects a black area in the image data (step S410 in Fig. 9, see abstract,

and column 6, line 57 through column 7, line 40), and an output part that adds color materials,

except a black material, of a predetermined amount to the black area regardless of contents of the

image data in a background of the black area and outputs the color materials and the black

material (step S460, and column 4, lines 27 through 47, wherein a process black section will be

reformulated and printed with high levels of non-black toners to match a surrounding area having

high levels of background toner).

        Regarding *claim 2*, Coleman discloses an image processing device (see Figs. 6 and 7)

comprising an input part to which image data represented by a plurality of colors including black

is input (step S405 in Fig. 9, see abstract, and column 3, line 60 through column 4, line 39), a

black area detector that detects a black area in the image data (step S410 in Fig. 9, see abstract,

and column 6, line 57 through column 7, line 40), an edge detector that detects an edge of the

black area (step S440 in Fig. 9, column 7, lines 41 through 61), and an output part that adds color

materials, except the black material, of a predetermined amount to the black area except the edge

regardless of contents of the image data in a background of the black area and outputs the color

materials and the black material (step S460, and column 4, lines 27 through 47, wherein a

process black section will be reformulated and printed with high levels of non-black toners to

match a surrounding area having high levels of background toner).

Regarding *claim 3*, Coleman discloses the device discussed above in claim 2, and further

teaches of an adjuster that adjusts the amount of the color materials except the black material

added to the edge in case a total amount of the color materials and the black material to be output

to the edge exceeds a predetermined amount (column 4, lines 27 through 47, and column 8, line

4 through column 9, line 35).

Regarding *claim 6*, Coleman discloses an image processing method (see Fig. 9)

comprising the steps of inputting image data represented by a plurality of colors including black

(step S405, see abstract, and column 3, line 60 through column 4, line 39), detecting a black area

in the image data (step S410, see abstract, and column 6, line 57 through column 7, line 40), and

adding color materials, except a black material, of a predetermined amount to the black area

regardless of contents of the image data in a background of the black area and outputs the color

materials and the black material (step S460, and column 4, lines 27 through 47, wherein a

process black section will be reformulated and printed with high levels of non-black toners to

match a surrounding area having high levels of background toner).

Regarding *claim 7*, Coleman discloses an image processing device (see Figs. 6 and 7)

comprising an input part to which image data represented by a plurality of colors including black

is input (step S405 in Fig. 9, see abstract, and column 3, line 60 through column 4, line 39), a

black area detector that detects a black area in the image data (step S410 in Fig. 9, see abstract,

and column 6, line 57 through column 7, line 40), an image determination unit that determines a

type of an image in each area in the image data (step S440 in Fig. 9, column 5, lines 13 through

24, and column 7, line 34 through column 8, line 8), and an output part that adds color materials,

except a black material, of a predetermined amount to an area determined to hold a

predetermined type by the image determination unit and detected as a black area by the black

area detector regardless of contents of the image data in a background of the black area and

outputs the color materials and the black material (step S460, and column 4, lines 27 through 47,

wherein a process black section will be reformulated and printed with high levels of non-black

toners to match a surrounding area having high levels of background toner).

Regarding *claim 8*, Coleman discloses the device discussed above in claim 7, and further

teaches that the output part adds color materials, except the black material, of a predetermined

amount to an area determined to hold a character by the image determination unit and detected as

a black area by the black area detector regardless of contents of the image data in a background

of the black area and outputs the color materials and a black material (steps S410-S460, column

4, lines 27 through 47, and column 6, line 65 through column 8, line 8, whereby a process black

section will be reformulated and printed with high levels of non-black toners to match a

surrounding area having high levels of background toner).

Regarding *claim 9*, Coleman discloses an image processing method (see Fig. 9)

comprising the steps of inputting image data represented by a plurality of colors including black

(step S405, see abstract, and column 3, line 60 through column 4, line 39), and adding color

materials, except a black material, of a predetermined amount to an area determined to hold a

predetermined image type and detected as a black area from among areas in the image data

regardless of contents of the image data in a background of the black area and outputting the

color materials and the black material (steps S410-S460, column 4, lines 27 through 47, and

column 6, line 65 through column 8, line 8, whereby a process black section will be reformulated

and printed with high levels of non-black toners to match a surrounding area having high levels

of background toner).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   **Claims 4 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman

(U.S. Patent Number 5,784,172) in view of Dermer *et al.* (U.S. Patent Number 5,313,570).

Regarding *claim 4*, Coleman discloses the device discussed above in claim 1, and further

teaches that the output part is based upon primary colors of black, yellow, magenta and cyan (see

abstract, column 6, lines 44 through 64, and column 8, lines 26 through 55), and an amount of

each color material of the Y, M, C is output to the black area (column 4, lines 27 through 47, and

column 8, line 26 through column 9, line 35). However, Coleman does not specifically teach if

the amount of each color material of the Y, M, C is output to the black area *in a range of 10 to*

40% (percentage by weight) of the amount of black material. Dermer discloses an image

processing device (see Fig. 1) comprising an input part to which image data represented by a plurality of colors including black is input (see Fig. 1), a detector that detect boundary areas in the image data (see abstract), and an output part that adds color materials, except a black material, of a predetermined amount to the detected area regardless of contents of the image data in a background of the area and outputs the color materials and the black material (column 19, line 8 through column 20, line 54). Further, Dermer teaches that the output part is based upon primary colors of black, yellow, magenta and cyan, and an amount of each color material of the Y, M, C is output to the black area in a range of 10 to 40% (percentage by weight) of the amount of black material (column 19, line 8 through column 20, line 54, and seen in Fig. 24, whereby the output part outputs Y, M, C materials in any specified range, included within the range of 10 to 40% percentage by weight). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teachings of Dermer in the system of Coleman. Coleman's system would easily be modified to include Dermer's teachings, as the systems share cumulative features, being additive in nature.

Regarding *claim 5*, Coleman and Dermer disclose the device discussed above in claim 4, and Coleman further teaches of a reduction unit that reduces the amount of the color material of the Y, M, C, keeping the amount of the black material in case a total amount of the color materials of K, Y, M, C exceeds a predetermined value (column 4, lines 27 through 47, and column 8, line 4 through column 9, line 35).

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The

examiner can normally be reached on Monday-Friday, 7:30-4:00.

     If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

     Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 306-0377.

J.R.P.

Joseph R. Pokrzywa
Examiner
Art Unit 2622

jrp

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